MANUAL FOR THE RHYTHMIC VERSION OF COSMOS FIRMWARE



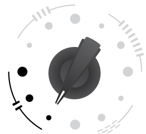
This firmware version (*COSMOS_R1.0.smf*) for COSMOS makes it possible to work with a clearly defined tempo and rhythm, while at the same time using all features and advantages of COSMOS design and philosophy. This version also contains a regular looper, with COSMOS functions of course.

Programs 1-9 are completely new with the possibility to define tempo and loop length. Program 10-12 are selected programs from the main firmware version (*COSMOS_M1.0.smf*).

All knobs, buttons and functions are the same as in the main version (please read the main manual), with the following exceptions:
The **BLUR** knob in programs 1-9 adds reverb.
The **DRIFT** knob in programs 7 and 8 adds octave down random shift.
The **DRIFT** knob in program 9 defines pitch shifting.

You can jump between programs preserving sound memory content as in the main firmware version. Jumping between programs 1-9 you also preserve the defined loop length and position inside the measure.

PROGRAM 1



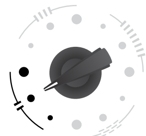
A regular looper. After power off or ERASE ALL the loop length is undefined. The first press of the RECORD button starts recording, increasing the loop length simultaneously (rapid blinking of the LEDs above the RECORD button). The second press of the RECORD button defines the loop length and restores the buffer pointer to the beginning, starting the record overdubbing.
Now the loop length is defined and will remain unchanged for all programs until you press ERASE ALL.

If during the first recording and loop definition you reach the end of the sound memory, the loop length will be set to the maximum automatically, and COSMOS will enter overdub mode.

Press ERASE ALL if you wish to redefine the loop length, BPM etc. ERASE ALL will also erase all sound buffer content.

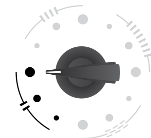
Jumping between programs 1-9, you not only preserve the loop length but also keep the same position inside the measure, keeping the rhythm intact.

PROGRAM 2



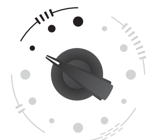
A looper with 8/7 shift.
The same as program 1 but the right channel buffer is shorter than the left one with a proportion of 8 to 7 (8/7). It creates shift accumulation but keeps the rhythm and BPM, combining COSMOS' unique approach with the possibility to work with defined rhythms and BPM.

PROGRAM 3



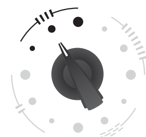
A looper with 4/3 shift.
The same as program 1 but the right channel buffer is shorter than the left one with a proportion of 4 to 3 (4/3). It creates shift accumulation but keeps the rhythm and BPM, combining COSMOS' unique approach with the possibility to work with defined rhythms and BPM.

PROGRAM 4



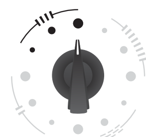
A random mangler based on divisions by 8. All other functions are as in program 1.

PROGRAM 5



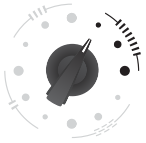
A random mangler based on divisions by 6. All other functions are as in program 1. Useful for all rhythms based on 3.

PROGRAM 6



A random mangler based on divisions by 5. All other functions are as in program 1. Useful for all rhythms based on 5.

PROGRAM 7



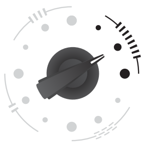
A crazy random mangler based on divisions by 8. It randomly produces different glitches and sound effects, creating cool rhythms and patterns from the buffers' content.

The **DRIFT** knob switches on a random octave down pitch shifter.
MIN → the random octave down pitch shifter is OFF.
MAX → the random octave down pitch shifter is ON.
(The point of switching is 12 o'clock)

All other functions are the same as in program 1.

- Due to very complex manipulations over the buffers' content, some pops and clicks may appear after an extended period of time. We spent a lot of effort on making all transitions smooth, but some minor bugs still exist. This is a very experimental mode for this reason, please understand this. However, in most cases the pops and clicks don't create real problems for the sound and can actually be used as part of the random pattern generation.

PROGRAM 8



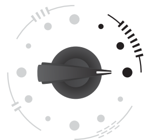
A crazy random mangler based on divisions by 6. It randomly produces different glitches and sound effects, creating cool rhythms and patterns from the sound buffers' content.

The **DRIFT** knob switches on a random octave down pitch shifter.
MIN → the random octave down pitch shifter is OFF.
MAX → the random octave down pitch shifter is ON.
(The point of switching is 12 o'clock)

All other functions are the same as in program 1.

- Due to very complex manipulations over the buffers' content, some pops and clicks may appear after an extended period of time. We spent a lot of effort on making all transitions smooth, but some minor bugs still exist. This is a very experimental mode for this reason, please understand this. However, in most cases the pops and clicks don't create real problems for the sound and can actually be used as part of the random pattern generation.

PROGRAM 9



A fractal rhythmic pitch shifter.

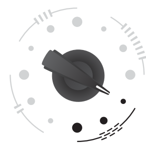
The **DRIFT** knob defines the pitch shifter mode.
MIN ⟶ octave down shift.
MIDDLE → no shift.
MAX ⟶ octave up shift.

The REVERSE button switches on back and forth mode of sound buffer scanning.

All other functions are the same as in program 1.

- Due to the nature of the applied algorithms in octave down and octave up mode, sound buffer content will gradually fade out. It's normal, please don't torture our tech support department :)

PROGRAM 10



The short 4 tap delay from the main version.

PROGRAM 11



The mid size reverb from the main version.

PROGRAM 12



The advanced three stage granular delay from the main version.

HOW TO DOWNLOAD THE FIRMWARE

1. Download the firmware from somasynths.com → COSMOS → FIRMWARE.
2. Save the firmware in the root directory of the flash drive. The file system of the flash drive must be FAT32. We recommend that you do not use high-capacity flash drives. 1-32 GB flash drives are ideal. Do not put several firmware versions in the root directory of one flash drive!
3. Turn off COSMOS.
4. Insert the flash drive into the USB port on the rear panel.
5. While holding down the RECORD button, turn on the power switch.
6. The switching of the LEDs above the RECORD button indicates a successful progress of update process.
7. Upon completion of the update process, COSMOS will automatically enter the operating mode, which will be evidenced by the running light on LEDs from left to right, which you see every time you turn on the device.
8. Now the flash drive can be removed.

If the firmware update process fails, the red LED next to the IN knob will turn on. If this happens:
- Check the operability of the flash drive.
- Make sure the firmware is placed in the root directory and the file name has not been changed.
- Try another flash drive.
- Try to delete all contents from the flash drive and format it before copying the firmware.